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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ROBINSON, BINTA M

ART UNIT

PAPER NUMBER

1625

DATE MAILED: 07/12/2002

15

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/704,840

Applicant(s)

SASSI, THOMAS PATRICK

Examiner

Binta M. Robinson

Art Unit

1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
- 5) ☒ Claim(s) 42, 44, 45, 63-65, 78, 80 and 81 is/are allowed.
- 6) ☒ Claim(s) 1, 5, 26-28, 30, 32, 64, 65 and 79 is/are rejected.
- 7) ☒ Claim(s) 33-38, 40-41, 66-72, 76-77, 82-83 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1,5-7,9,13,14,16,18,21,25-28,30,32-38,40-42,44-47,50,51,53,54,57,60,63-72 and 75-81.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 6,7,9,13,14,16,18,21,25,46,47,50,51,53,54,57,59 and 60.

### Detailed Action

The applicant traverses the restriction requirement, asserting that the compounds of formula II do fit into group I and not group II. However, the applicant is mistaken.

The B moiety of the compound I in claim 1 can only be indolo. However, the compound of formula II in claim 6 and its dependent claims does not contain any indolo ring where the B moiety would be found, but instead a phenyl ring. Compounds in group I would vary in classification from compounds in group II. For example, compounds in group I would be classified in class 548, whereas compounds in group II would be classified in various classes including 549. The examiner inadvertently left out claim 16 from group II. Since claim 16 depends on claim 6, it should also go in group II. The examiner agrees with the applicant that it would not change classification to revise group I to include compounds where Z is NR<sub>8</sub>R<sub>9</sub> wherein R<sub>8</sub> and R<sub>9</sub> are independently H or C<sub>1</sub>-4alkyl, therefore the restriction is revised accordingly such that group I includes these moieties.

The 112, first paragraph rejection of claims 1, 5, 26, and 79 and the 112, second paragraph rejection of claims 75 and 81 are withdrawn in light of applicant's amendment at paper no. 13C. The objection to claim 27 is withdrawn in light of applicant's remarks at paper no. 13C.

### (old rejections)

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is

Art Unit: 1625

most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1000P  
Claim 28 is rejected under 35 U.S.C. 112, first paragraph, for reasons of record at paper no. 12 because the specification, does not reasonably provide enablement for the method of treating all of the various cancers. No drug can treat all of these cancers. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The claims as recited are broader than the scope of enablement.

The applicant is referred to *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) which includes the incorporation of the 8 factors recited in Ex parte foreman 230 USPQ 546 (Bd. Of App. And Inter 1986).


There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". These factors include 1) the breadth of the claims, 2) the nature of the invention, 3) the state of the prior art, 4) the level of one of ordinary skill, 5) the level of predictability in the art 6) the amount of direction provided by the inventor 7) the existence of working examples, and 8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In *re Wands*, 858 F. 2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

In terms of the first Wands factor of breadth, the treatment of a wide range of cancers with a compound of claim 1 is being claimed. In terms of the nature of the invention

Art Unit: 1625

which is the second Wands factor, these compounds are useful in the treatment of various cancers. In terms of the fifth Wands factor, the caspase potency ranges from 7 which is poor to 364 which are great. There are massive differences in caspase potency for small changes in structure. For example, compound 97 has a 3 bromo instead of a 2 bromo and a methyl on the 4H-indolo ring. However, the caspase potency compound 7 whereas it is 364 for compound 95. The level of predictability regarding caspase potency is low. In terms of the sixth Wands factor, the amount of direction provided by the inventor is poor, because the applicant does not test compounds for their affects on the specific diseases claimed. The applicant must show tests results for the cancers claimed involving specific cell lines. In terms of the 8<sup>th</sup> Wands factors, undue experimentation would be required to make or use the invention based on the content of the disclosure due to the breadth of the claims, the level of predictability in the art of the invention, and the poor amount of direction provided by the inventor. Taking the above factors into consideration, it is not seen where the instant claim is enabled by the instant application.

**(new rejections and objections)**

 Claim 41 objected to under 37 CFR 1.75 as being a substantial duplicate of claim 66. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Art Unit: 1625

keep  
Claim 66 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 67. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

keep  
Claim 67 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 66. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 68 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 69. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 69 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 68. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 70 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 69. When two claims in an application are duplicates or else are so close in

Art Unit: 1625

content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 71 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 41. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim 72 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 41. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

100p  
Claims 1, 5, 26, 30, and 79 are rejected under 35 U.S.C. 112, first paragraph, because the specification, does not reasonably provide enablement for the method of treating all inflammation diseases or cancers related to a disorder responsive to the induction of apoptosis in an animal suffering therefrom or all drug resistant cancers,



Art Unit: 1625

or R10 and R11, or R11 and R12 of the compound in claim 46 coming together to form all heteraryl or optionally substituted heterocyclic groups. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The claims as recited are broader than the scope of enablement.

The applicant is referred to *In re Wands*, 858 f.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988) which includes the incorporation of the 8 factors recited in Ex parte foreman 230 USPQ 546 (Bd. Of App. And Inter 1986).

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". These factors include 1) the breadth of the claims, 2) the nature of the invention, 3) the state of the prior art, 4) the level of one of ordinary skill, 5) the level of predictability in the art 6) the amount of direction provided by the inventor 7) the existence of working examples, and 8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. In *re Wands*, 858 F. 2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

In terms of the first Wands factor of breadth, the treatment of all diseases responsive to the induction of apoptosis in an animal with a compound of formula I are being claimed.

In terms of the nature of the invention which is the second

Wands factor, these compounds are useful as activators of caspases and inducers of apoptosis. In terms of the sixth Wands factor, the amount of direction provided by the

Art Unit: 1625

inventor is poor, because the applicant does not test compounds for their affects on the specific diseases claimed. In terms of the 8<sup>th</sup> Wands factors, undue experimentation would be required to make or use the invention based on the content of the disclosure due to the breadth of the claims, the level of predictability in the art of the invention, and the poor amount of direction provided by the inventor. Taking the above factors into consideration, it is not seen where the instant claim is enabled by the instant application.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) 1, 5, 26, 27, 30, 32, and 79 in part are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. In claims 1, 5, 26, and 79 in part, at paper no. 13C, the phrase "inflammation" is indefinite. It is unclear as to which inflammation diseases the applicant is referring to. *keep*

B. In claim 27, line 2, page 5, of the amendment at paper no. 13C, the term "cancer" is indefinite. What cancer is the applicant claiming? *keep*

C. In claim 32, lines 2-3, page 115, and all other occurrences of this term in claims 33 the phrase "cancer chemotherapeutic agent" and "pharmaceutically acceptable salt of said agent" are indefinite. What cancer chemotherapeutic agents are the applicant claiming? *keep*

Art Unit: 1625

D. In claim 30, lines 1-2, page 115, the phrase "drug resistant cancer" is indefinite.

What drug resistant cancers is the applicant claiming?

*keep*

E. In claim 64, lines 2-3, page 131, the term "cancer chemotherapeutic agent, or a pharmaceutically acceptable salt of said agent" is indefinite. Which cancer chemotherapeutic agent or salt thereof is the applicant claiming?

*keep*

F. In claim 65, line 9, page 12 of the amendment at paper 10/B, the terms "Herceptin ®", and "Rituxan ®" are indefinite because they are trade names.

*keep*

Claims 32-38, 40-41, 66-72, 76-77, 82-83 are objected to because they are based on a rejected claim and/or duplicates of another claim.

Claims 42, 44, 45, 63-65, 75, 78, 80, 81 appear to be allowable as they read on the examined subject matter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binta M. Robinson whose telephone number is (703) 306-5437. The examiner can normally be reached on M-F (9:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman can be reached on (703)308-4698. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7922 for regular communications and (703)308-7922 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0193.

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